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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,000	04/08/2002	Hideto Furuta	356882001300	5823

7590 12/16/2005

Morrison & Foerster  
2000 Pennsylvania Avenue N W  
Washington, DC 20006-1888

EXAMINER
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ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/090,000	<b>Applicant(s)</b> FURUTA	
	<b>Examiner</b> Angela A. Armstrong	<b>Art Unit</b> 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 6 is objected to because of the following informalities: The claim recites “the voice-actuated machine body control apparatus for a construction machine as set forth in claim 4, construction machine as set forth in claim 3.” As the remainder of the claim language is identical to the claim language of claim 5, which actually depends from claim 3, the Examiner assumes applicant intended claim 6 to depend from claim 4 and the claims have been examined as such. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite the limitation “avoidance means capable of inhibiting, when the presence of an object outside of said machine body is detected by said obstacle recognition means, the machine body movement in accordance with the voice command preferentially to the control by said machine body control means thereby to avoid an inappropriate movement of said machine body.” It is unclear as to what applicant is attempting to claim in regards to the “voice command preferentially to the control by said machine body control means.” The Examiner has interpreted the recitation to refer to an avoidance means inhibits a requested machine movement if an object is detected by the obstacle recognition means.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-56827 (translation) in view JP 05-47062 (translation).

4. Regarding claim 1, JP 2000-56827 discloses a voice-actuated machine body control apparatus for a construction machine (0009-0021), characterized in that it comprises: speech recognition means (1a) capable of speech-recognizing a voice command representative of an instruction by voice regarding a movement of a machine body (80) (0011,0014-0016); machine body control means (1e) capable of controlling the movement of said machine body (80) based on a result of the recognition by said speech recognition means (1a) (0011, 0014-0016).

JP 2000-56827 does not disclose obstacle recognition means (1b) capable of detecting the presence of an object outside said machine body (80) which may possibly make an obstacle to the movement of the machine body (80); and avoidance means (1c) capable of inhibiting, when the presence of an object outside of said machine body (80) is detected by said obstacle recognition means (1b), the machine body movement in accordance with the voice command preferentially to the control by said machine body control means (1e) thereby to avoid an inappropriate movement of said machine body (80).

JP 05-47062 describes an emergency shutdown system in vehicle system construction equipment and specifically provides support for obstacle recognition means (1b) capable of detecting the presence of an object outside said machine body (80) which may possibly make an obstacle to the movement of the machine body (80); and avoidance means (1c) capable of inhibiting, when the presence of an object outside of said machine body (80) is detected by said obstacle recognition means (1b), the machine body movement in accordance with the voice command preferentially to the control by said machine body control means (1e) thereby to avoid an inappropriate movement of said machine body (see 0011-0016).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the voice operated remote control system for a construction device as described by JP 2000-56827 to provide obstacle recognition and avoidance as suggested in the teachings of JP 05-47062, for the purpose of providing additional safety and awareness of the remote location.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-56827 (translation) in view JP 05-47062 (translation) and further in view of JP 11-237892.

6. Regarding claim 2, JP 2000-56827 and JP 05-47062 do not teach the said avoidance means (1c) further includes priority degree determination means (1f) for determining a degree of priority regarding the inhibition of the machine body movement in accordance with the voice command, and an optimum machine body movement is performed using the degree of priority determined by said priority degree determination means (1f).

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JP 11-237892 teaches a recognition system for controlling devices, which sets priorities for command control of the devices (0012-0014). It would have been obvious to one of ordinary skill at the time of the invention to modify the system for a construction device as described by JP 2000-56827 to provide obstacle recognition and avoidance as suggested in the teachings of JP 05-47062, and to further provide for degrees of priority in command control, so as to ensure appropriate commands are recognized and executed in the system and provide additional safety and caution of the remote control system.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

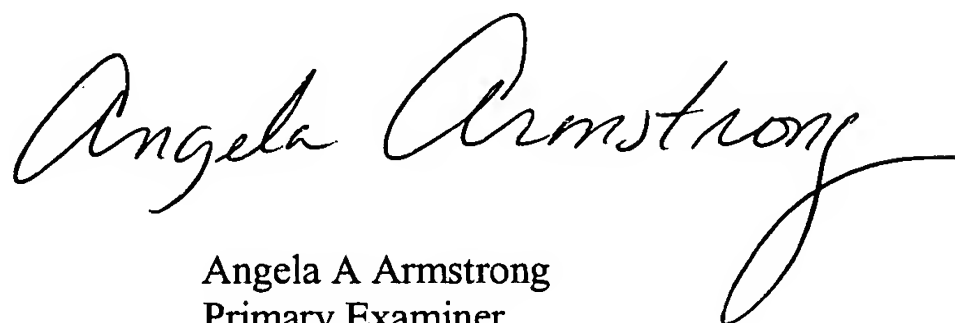
Lemelson et al (US Patent No. 6,553,130) discloses a motor vehicle warning and control system and method.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Angela Armstrong". The signature is fluid and cursive, with a long, sweeping tail on the "g" of "Armstrong".

Angela A Armstrong  
Primary Examiner  
Art Unit 2654

AAA  
December 11, 2005